NOVEMBER/DECEMBER 2024

FCA52/FCS52/FSC52/ CCA52/CCS52/ CSC52 — OPERATING SYSTEM

Time : Three hours Maximum : 75 marks

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SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Define the term — Operating system.
2. What is a Process?
3. Define the term — Semaphore.
4. List out the types of CPU Schedulers.
5. Distinguish between Logical versus Physical address space.
6. Define the term Fragmentation in memory management.
7. What is meant by Free space management?
8. What are File access methods?
9. Define the term — Kernel.
10. Expand UNIX.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Discuss on different types of Operating systems.

Or

(b) Describe about the Storage structure and Storage hierarchy.

12. (a) Explain the basic concepts of CPU Scheduling and Scheduling criteria.

Or

(b) Discuss on the basic concept of Deadlock and Deadlock characterization.

13. (a) Describe about Demand Paging memory management technique.

Or

(b) Explain the Segmentation memory management technique.

14. (a) Discuss on Directory structure.

Or

(b) Describe the File allocation methods.

15. (a) Explain the Memory management in UNIX.

Or

(b) Discuss on File systems in Linux.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain about System calls, design and implementation.

17. Describe the method of Deadlock prevention, detection and recovery.

18. Discuss on the Page replacement algorithms in Virtual memory.

19. Explain the Disk Scheduling algorithms.

20. Describe about the Process management and Scheduling in Linux.

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